

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Original) A smooth surface copper foil for lamination to a dielectric substrate, the copper foil comprising:

a peel strength enhancement coating deposited on a smooth surface of the copper foil having an R_z of less than about 1 μm to be laminated to said dielectric substrate, the peel strength enhancement coating consisting essentially of a metal and metal oxide mixture, the metal and metal oxide mixture being formed from one or more of: vanadium, niobium, tantalum, chromium, molybdenum, tungsten, manganese, technetium, and rhenium.
2. (Cancelled)
3. (Original) The copper foil of claim 1, wherein the metal oxide is selected from the group consisting of chromate, tungstate and molybdate.
4. (Original) The copper foil of claim 1, wherein the peel strength enhancement coating has a thickness of between about 20 to about 200 angstroms.
5. (Original) The copper foil of claim 1, wherein silane is deposited on the peel strength enhancement coating prior to lamination to the dielectric substrate.
6. (Currently Amended) An article comprising:

a dielectric substrate;

a copper foil having a smooth surface with an R_z less than about 1 μm laminated to the dielectric substrate; and

a peel strength enhancement coating disposed between the smooth surface of the copper foil and the dielectric substrate, said peel strength enhancement coating being a mixture of a metal and a metal oxide with said metal selected from the group consisting of one or more

of vanadium, niobium, tantalum, chromium, molybdenum, tungsten, manganese, technetium, and rhenium, wherein the copper foil exhibits less than or equal to 10% loss of peel strength when ~~measured~~ measured in accordance with IPC-TM-650 Method 2.4.8.5 using a 1/8 inch test specimen after being immersed in 4N HCl at 60°C for 6 hours.

7. (Cancelled)

8. (Original) The article of claim 6, wherein the metal oxide is selected from the group consisting of chromate, tungstate and molybdate.

9. (Original) The article of claim 6, wherein the peel strength enhancement coating has a thickness of between about 20 to about 200 angstroms.

10. (Original) The article of claim 6, wherein the peel strength enhancement coating exhibits less than or equal to 10% edge undercut after the immersion in 4N HCl at 60°C for 6 hours.

11. (Original) The article of claim 6, wherein the copper foil exhibits less than or equal to about 7% loss of peel strength when measured in accordance with IPC-TM-650 method 2.4.8.5 using a 1/8 inch test specimen after being immersed in 4N HCl at 60°C for 6 hours.

12. (Original) The article of claim 6, wherein silane is deposited on the peel strength enhancement coating prior to lamination to the dielectric substrate.

Claims 13 – 28 (Cancelled)